

- (b) if so, by the end of the year, what was the actual demand and the availability; and
- (c) how the gap was met?

THE MINISTER OF STATE IN THE MINISTRY OF COAL (SHRI PRATIK PRAKASHBAPU PATIL): (a) to (c) Yes Sir. As per Annual Plan 2010-11, the estimated demand during 2010-11 is 656.31 MT while the information on actual demand is not readily available, the actual coal production in 2010-11 (upto January, 2011) is 424.16 MT and the gap is likely to be met through imports.

#### **Fatality rate in CIL**

1878. SHRI R.C. SINGH: Will the Minister of COAL be pleased to state:

- (a) the fatalities in CIL during the last five years, year-wise and mine-wise;
- (b) whether it is a fact that, as per the report of the Asian Development Bank, the fatality rate in coal mines in India is 0.4 million tonnes per year which is ten times more than US, Australia, etc.; and
- (c) if so, how the Ministry views this and the steps proposed to be taken to bring down the fatality rate?

THE MINISTER OF COAL (SHRI SHRIPRAKASH JAISWAL): (a) The details of fatalities in CIL during the last five years *i.e.* from 2006-2010 year-wise and mine-wise is given in Statement (See below).

(b) As reported by Ministry of Labour and Employment, the fatality rate in coal mines in India is reported to be 0.25 per million tonnes during the year 2010. Data in respect of fatality rate of other developed countries like USA, Australia etc. are not available for comparison.

(c) To bring down the fatality rate in the coal mines, the existing system and the steps proposed to be taken are as under:

"The causes of all accidents are being enquired into and the causes and circumstances leading to mine accidents being identified and recommendations of enquiring authorities for preventing such incidents/accidents are being complied with."

Further, Ministry of Labour and Employment (MOL&E) through the Directorate General of Mines Safety (DGMS) is responsible for monitoring and enforcing safety in coal mines as per the provisions of the Mines Act 1952. Coal mine operators are responsible for compliance of safety standards in mines as per the Mines Act 1952 and the Rules and Regulations thereunder. Safety performance monitoring is a continuous process and DGMS is the nodal agency for prescribing the standards of safety in coal mines. Safety circulars are issued by DGMS taking into account the necessary improvements in safety standards and Coal Mines Regulations (CMR) are

amended from time to time incorporating the necessary changes in safety standards on the basis of observations made during safety inspections and recommendations of various safety committees and courts of inquiries. All the major accidents/fatal accidents are enquired in detail by the mine managements as well as the DGMS. Government also constitutes Courts of Inquiry under the provision of Mines Act 1952, depending on the severity of the accidents. Persons found guilty are prosecuted by the Government and the mine managements also take disciplinary action against the guilty. Tripartite safety committees comprising of mine management, Trade Unions (TUs) and DGMS officials review and monitor the safety standards in mines and make recommendations. At the national level, the safety aspects of coal mines in the country are reviewed periodically by a Standing Committee on Safety in Coal Mines under the Chairmanship of Minister of Coal. Based on the decisions taken in various meetings coal companies are taking the following action:

- Regular safety audit of mines and risk assessment to mitigate the potential dangers
- Filling up statutory vacancies on priority for effective safety monitoring
- Safety monitoring through multi-disciplinary Internal Safety Organization (ISO)
- Workers participation in safety management
- Thrust on training and retraining of supervisors and workmen including contractor's workers
- Scientific roof support systems based on rock-mass-rating
- Regular monitoring of mine environment for detecting inflammable and noxious gases
- Mechanization of mining operations.

**The steps proposed to be taken in this regard are as under:**

#### **1. E-Governance in DGMS**

Under plan scheme, DGMS has moved on the path of e-governance utilizing the power of IT in accordance with the recommendations of the Central Cabinet. In order to achieve this goal an e-Governance Road map has been made, which has suggested implementing it in a phased manner giving importance on the establishment of formal organizational structure and project management structure, to be completed in 18 months. The examination module has been prioritized taking into consideration the huge public interfaces regarding the function of conduct of examination by DGMS. In the next phase, Unified Portal, Human Resource Management System, Establishing Wide Area Networking (WAN), Data Centre (DC)

and Disaster Recovery Centre are major key components of the project. This project is in an advanced stage of implementation.

**2. Measures taken to improve the safety standards in mines**

- Roof bolting as a method of support in place of conventional support
- Risk assessment and preparation of safety management plan
- Self-regulation by management
- Workers' participation in safety management
- Tripartite and bipartite review at various levels
- Training of work persons
- Observance of safety week and safety campaigns
- Conference on safety in mines
- National Safety Awards

**3. New Areas**

- Growing health and safety complexities in mining
- New technology and mechanization
  - Dust, noise, frictional and electrical sparking, gas emission, moving parts, structural failures, material handling, lack of training, radiation, hazardous chemicals, off-shore drilling.
- Increased depth
  - Strata control, slope stability, water percolation, heat and winding.
- Adverse geo-mining factors
  - Disturb/crushed ground, thin deposits, seams near surface features, fire and waterlogged workings

***Statement***

*Fatalities in CIL mines during 2006-2010*

**(a) Year : 2006**

Company	Accident Date	Mine	Fatality
1	2	3	4
NCL	10-Dec-06	Amlohri	1
SECL	08-Mar-06	Banki	1
SECL	10-Mar-06	Bartarai	1

1	2	3	4
BCCL	21-Apr-06	Bera	1
BCCL	06-Sep-06	Bhatdee	50
BCCL	26-Aug-06	Bhowra South 3PIT OCP	1
BCCL	07-Dec-06	Block II OCP	1
WCL	25-Sep-06	Chhatarpur Mine No. I	1
WCL	23-Dec-06	Chhatarpur Mine No. II	1
ECL	31-Aug-06	Chora 10 PIT	1
SECL	27-Apr-06	Dhanpuri Opencast	1
NCL	17-Feb-06	Dudhichua Project	1
WCL	04-Jul-06	Durgapur OC	1
WCL	13-Jul-06	Ganpati	1
WCL	31-Jan-06	Ghorawari	1
ECL	19-Dec-06	Ghusick	1
BCCL	09-Jul-06	Godhur	1
BCCL	08-Jul-06	Gopalichuck	1
ECL	23-May-06	Harijam	1
WCL	11-Mar-06	Hindustan Lalpeth No. 3	1
WCL	24-May-06	Hindustan Lalpeth OC	1
SECL	11-Feb-06	Jamuna 1 & 2 UG Mine	1
NCL	14-Feb-06	Jayant	1
NCL	04-Jul-06	Jayant Project	2
CCL	16-Jan-06	K.D. Hesalong Project	1
CCL	12-Aug-06	K.D. Hesalong Project	1
ECL	09-Mar-06	Kunustoria	1
SECL	21-Oct-06	Kusmunda OCP	1
BCCL	21-Aug-06	Kustore	1
MCL	27-Feb-06	Lingaraj OCP	1
BCCL	26-Jul-06	Londa	1

1	2	3	4
WCL	08-Sep-06	Mahakali	1
SECL	12-Mar-06	Manikpur (O/C)	1
ECL	30-Jun-06	Nakrakonda	1
MCL	23-Jun-06	Orient No. 3	1
BCCL	10-Dec-06	Pathardih	1
WCL	14-Feb-06	Pipla	1
BCCL	06-Mar-06	Pootkee Balihari Project, 1&2 PIT	1
BCCL	23-Oct-06	Rajapur OCP	1
ECL	03-Mar-06	Rajmahal OCP	1
SECL	09-Sep-06	Rajnagar Opencast	1
CCL	06-Dec-06	Ray/Bachra	1
CCL	09-Jun-06	Sarubera East	1
WCL	27-Sep-06	Sasti U.G.	1
WCL	28-Jun-06	Satpura No. 2	1
CCL	03-Jul-06	Selected Dhorl Quarry No.3/Tarmi	1
BCCL	21-Nov-06	Sendra Bansjora	1
ECL	30-Nov-06	Shyamsundarpur	6
ECL	07-Nov-06	Sripur Seam Incline	1
WCL	01-Mar-06	Tandsi Mine No. 1/2	1
WCL	12-Jan-06	Vishnupuri U/G Mine No.II	1

**(b) Year : 2007**

Company	Accident Date	Mine	Fatality
1	2	3	4
BCCL	23-Jan-2007	Block-II	1
BCCL	17-Jan-2007	Madhuban	1
BCCL	20-Feb-2007	Block-II	1
BCCL	24-Mar-2007	Kujama	1

1	2	3	4
BCCL	2-Jun-2007	Dobari	1
BCCL	4-Jul-2007	Dhansar	1
BCCL	6-Sep-2007	Jealgora	1
BCCL	7-Nov-2007	North Tisra-South Tisra OC	1
BCCL	10-Dec-2007	Bhagabandh	1
CCL	12-Mar-2007	KDH OC	2
CCL	25-Apr-2007	Sirka	1
CCL	1-May-2007	Khasmahal	1
CCL	19-May-2007	Selected Dhorī Q-3	1
CCL	24-May-2007	Amlo OCP	1
CCL	15-Jun-2007	Ashoka OCP	1
CCL	11-Sep-2007	Dhorī	1
ECL	13-Jan-2007	Rajmahal OCP	2
ECL	17-Feb-2007	J.K. Nagar	1
ECL	6-Jul-2007	Chapuikhas	1
ECL	8-Aug-2007	Sodepur 9&10 PIT	1
ECL	16-Sep-2007	Kumardih - A	1
ECL	21-Dec-2007	Parbelia	1
ECL	31-Dec-2007	Rajmahal OCP	1
MCL	3-Jan-2007	Lingaraj OCP	1
MCL	31-Jul-2007	Lingaraj	1
MCL	15-Dec-2007	Basundhara OCP	1
MCL	14-Dec-2007	Lakhanpur OCP	1
NCL	7-Apr-2007	Jayant	1
NCL	8-May-2007	Krishnasheela	1
NCL	22-M-2007	Dudhichua OCP	1
NCL	18-Sep-2007	Amlohri	1
NCL	4-Dec-2007	BINA	1

1	2	3	4
NCL	10-Oct-2007	Amlori	1
SECL	6-Feb-2007	Pali	1
SECL	27-Feb-2007	NCPH (old)	1
SECL	31-Mar-2007	Navagaon	1
SECL	8-May-2007	Gevra OCP	1
SECL	30-May-2007	Dipka OCP Quarry No. 1	1
SECL	1-Jun-2007	Churcha Colliery	1
SECL	11-Jun-2007	Kusmunda OCP	1
SECL	1-Jul-2007	Dipka OCP (No. 1A)	1
SECL	31-Jul-2007	Nowrazabad (West)	1
SECL	2-Nov-2007	West Jhagrakhand	1
SECL	16-Jun-2007	Govinda	1
SECL	21-July-2007	Kurasia UG	1
SECL	13-Oct-2007	Chirimiri	1
SECL	27-Oct-2007	Mahamaya	1
WCL	10-Jan-2007	New Majri OC-II	1
WCL	11-Feb-2007	Saoner- 3	1
WCL	26-Feb-2007	Ukni	1
WCL	5-Mar-2007	Tawa	1
WCL	14-Mar-2007	Mungoli OC	1
WCL	21-Mar-2007	New Majri OCP	1
WCL	9-Apr-2007	Ghorawari	1
WCL	18-Apr-2007	Sasti OC	1
WCL	4-May-2007	Manna Incline	1
WCL	17-Jul-2007	Ghugus OC	1
WCL	24-Nov-2007	Nandan-1	1
WCL	5-Oct-2007	Tawa	1

## (c) Year : 2008

Company	Accident Date	Mine	Fatality
1	2	3	4
BCCL	14-Jan-08	Blocok-II	1
BCCL	07-Apr-08	Bararee	1
BCCL	10-Jun-08	Burragarh	1
BCCL	27-Jun-08	Loyabad	1
BCCL	12-Jul-08	West Mudidih	1
BCCL	16-Jul-08	Jamuna OCP	1
BCCL	25-Sep-08	Bastacolla	1
BCCL	03-Oct-08	AKWM UG	1
BCCL	05-Nov-08	Moonidih Project	1
BCCL	19-Nov-08	Londa	1
BCCL	21-Nov-08	Muraidhi OC	1
CCL	09-Feb-08	Jarangdih UG	1
CCL	24-Jul-08	Tarmi	1
CCL	25-Jul-08	KDH OC	1
CCL	07-Nov-08	Jarangdih OC	1
ECL	23-Jan-08	Mohanpur OCP	1
ECL	17-Feb-08	Chora 7 & 9 Pit	1
ECL	21-May-08	Parascole (W)	1
ECL	07-Jun-08	Parasea 6&7 Incline	1
ECL	17-Jun-08	Jambad	1
ECL	20-Jun-08	Parbelia	1
ECL	25-Jun-08	Khottadih	1
ECL	04-Jul-08	Bansra	1
ECL	03-Oct-08	Sodepur-R	1
ECL	04-Nov-08	Mandmon	1
ECL	22-Dec-08	Khottadih OCP	1



1	2	3	4
MCL	28-Feb-08	Orient Mine No. 4	1
MCL	30-Mar-08	Lajkura OC	1
MCL	18-Jun-08	Samleswari OCP	1
MCL	24-Aug-08	Ananta OCP	1
NCL	16-Jan-08	Nigahi	1
NCL	01-Feb-08	Khadia OC	1
NCL	20-Jun-08	Nigahi Project	1
NCL	08-Sep-08	Dudhichua Project	1
NCL	17-Dec-08	Jayant Project	5
NCL	27-Dec-08	Kakri Project	1
NEC	23-Apr-08	Baragolai	2
NEC	04-Nov-08	Ledo	5
SECL	25-Jan-08	Jamuna OCM	1
SECL	17-Feb-08	Gevra OCP	1
SECL	17-May-08	Gevra OCP	1
SECL	26-May-08	Pinoura	1
SECL	05-Jun-08	Bijuri	1
SECL	18-Jun-08	Churcha	1
SECL	01-Jul-08	Umaria	2
SECL	04-Aug-08	Manikpur OCM	1
SECL	12-Sep-08	Dipka	1
SECL	03-Nov-08	NCPH (New)-R-2	1
SECL	09-Nov-08	Jainagar 5 & 6 INCL.	1
SECL	10-Dec-08	Pandavpara	1
WCL	22-Jan-08	Durgapur Rayatwari	1
WCL	26-Feb-08	Nandgaon	1
WCL	18-Apr-08	Durgapur	1
WCL	27-Apr-08	Dhorwasa OC	1

1	2	3	4
WCL	11-May-08	Nehariya	1
WCL	19-May-08	Vishnupuri Mine No. 2	3
WCL	22-May-08	Padmapur OC	1
WCL	05-Jul-08	Tandsi 3&4 Incline	1
WCL	18-Jul-08	Pathakhera Mine No. 1	1
WCL	06-Oct-08	Padampur OC	1
WCL	12-Nov-08	Gouri OC-II	1

(d) Year : 2009

Company	Accident Date	Mine	Fatality
1	2	3	4
BCCL	05-Jan-09	Londa	3
BCCL	20-Jan-09	Bhagaband	1
BCCL	02-Feb-09	Simlabahal	1
BCCL	17-Mar-09	Bastacola	1
BCCL	16-Apr-09	North Tisra-South Tisra OC	1
BCCL	05-May-09	Block-II OCP	1
BCCL	23-May-09	Kusunda OC	1
BCCL	09-Jul-09	Akashkineri	1
BCCL	15-Jul-09	Ghanoodih OCP	1
BCCL	24-Jul-09	Nichitpur OCP	1
BCCL	28-Jul-09	Sendra Bansjora	3
BCCL	19-Sep-09	P.B. Project	1
BCCL	22-Oct-09	Basdeopur	1
CCL	13-Mar-09	Jarangdih OC	1
CCL	15-May-09	Jarangdih UG	1
CCL	17-May-09	Piparwar OC	1
CCL	24-Jul-09	Karma OC	1

1	2	3	4
CCL	03-Sep-09	Sirka CHP	1
CCL	18-Nov-09	Jharkhand OC	1
ECL	28-Feb-09	Rajmahal OCP	1
ECL	03-Mar-09	Bhanora West Block	1
ECL	02-Apr-09	Haripur	1
ECL	26-Jun-09	Kunustoria	1
ECL	10-Aug-09	Rajmahal OCP	1
ECL	10-Aug-09	Kumardhi "A"	1
ECL	27-Aug-09	Satgram	2
ECL	17-Sep-09	North Searsole	1
MCL	17-Mar-09	Hingula OC	1
MCL	28-Aug-09	Jaganath OCP	1
MCL	22-Sep-09	Ananta	1
NCL	25-Jan-09	Kakri Project	1
NCL	26-Jul-09	Dudhichua Project	1
NCL	02-Sep-09	Bina Project	1
NCL	15-Dec-09	Bina Project	1
SECL	03-Feb-09	Churcha	1
SECL	04-Feb-09	Bartunga Hill	1
SECL	19-Feb-09	Dipka OC	1
SECL	18-Apr-09	Dipka OC	1
SECL	06-May-09	Navgaon UG	1
SECL	08-Jun-09	Dipka OCM (No. 1A)	1
SECL	02-Sep-09	Amlai OCM	1
SECL	29-Oct-09	Gevra OCP	1
SECL	30-Oct-09	Kusmunda OC	1
SECL	25-Nov-09	Churcha	1
WCL	09-Feb-09	New Majri Mine No. 3	1

1	2	3	4
WCL	19-Mar-09	Nandan-1 Mine	1
WCL	03-May-09	Manna Incline	2
WCL	30-May-09	Rawanwara Khas (Pench East)	1
WCL	04-Jun-09	Sasti OC	2
WCL	12-Jul-09	Damua	1
WCL	15-Jul-09	Sarni	1
WCL	12-Nov-09	Mathani	1
WCL	17-Dec-09	Shobhapur	1
WCL	23-Dec-09	Mahakali	1
WCL	23-Dec-09	Gauri OC	1

(e) Year : 2010

Company	Accident Date	Mine	Fatality
1	2	3	4
BCCL	17-Feb-10	Muraidih OCP	1
BCCL	30-Mar-10	Alkusa	1
BCCL	08-Aug-10	North Tisra/South Tisra OCP	1
BCCL	23-Sep-10	Moonidih	1
BCCL	15-Dec-10	Gondudhi	1
BCCL	21-Dec-10	Mudidih	1
BCCL	26-Dec-10	Keshalpur-West Mudidih	1
CCL	27-Jan-10	Jarangdih OC	1
CCL	28-Jan-10	Selct. Dhorl QRY. 1	1
CCL	05-Apr-10	Bhurkunda UG	2
CCL	20-May-10	Amlo Opencast Project	2
CCL	01-Apr-10	Karo OC	1
CCL	20-Aug-10	Bhurkunda OCM	1
CCL	12-Sep-10	Sarubera (East) Colliery	1

1	2	3	4
CCL	29-Nov-10	Karma OC	1
ECL	02-Jan-10	Shankarpur	1
ECL	13-Feb-10	Nakrakonda - B Patch OC	1
ECL	16-Apr-10	Jambad OCP (WB)	1
ECL	22-Apr-10	Sodepur (R) Colliery	1
ECL	05-Jun-10	Rajmahal OCP	1
ECL	12-Jun-10	Jhanjra Project	1
ECL	03-Sep-10	Chitra-A-OCP	1
ECL	12-Sep-10	Khas Kajora	1
ECL	02-Sep-10	Khas Kajora	1
ECL	14-Oct-10	Nakrakonda B OCP	1
ECL	27-Oct-10	Parasea Colliery	1
ECL	14-Dec-10	Rajmahal OCP	1
MCL	04-Jun-10	Balram OCP	1
MCL	09-Jun-10	Samleswari OCP	1
NCL	11-Jan-10	Khadia OCP	1
NCL	09-Feb-10	Block-B Project	1
NCL	24-Jan-10	Amlohri Project	1
NCL	20-Feb-10	Kakri Project	1
NCL	14-Mar-10	Nigahi Project	1
NCL	30-Apr-10	Nigahi Project	1
NCL	11-Jul-10	Nigahi	1
NCL	20-Jul-10	Bina Project	1
NCL	21-Jul-10	Dudhichua Project	1
NCL	26-Aug-10	Dudhichua OCP	1
NCL	15-Dec-10	Amlohri OCP	1
NEC	08-Sep-10	Tirap Colliery	1
SECL	10-Feb-10	Jamuna 1&2 Incline	1

1	2	3	4
SECL	24-Feb-10	Bartarai	1
SECL	20-Mar-10	Balgi 3 & 4 Inc.	1
SECL	03-Apr-10	Birsinghpur 3 & 4	1
SECL	16-Apr-10	Pawan Inc.	1
SECL	23-Apr-10	Palkimara Mine	1
SECL	24-Apr-10	Dhanpuri Open CAST	1
SECL	06-May-10	Anjan Hill UG	14
SECL	19-May-10	Dipka OCM (No.1A)	1
SECL	22-Jun-10	Bartunga Hill Mine	1
SECL	03-Jul-10	Bhatgaon Colliery	1
SECL	01-Aug-10	Surakachhar Main	1
SECL	12-Aug-10	Rajnagar RO UG	1
SECL	12-Sep-10	Katkona 3 & 4 Incline	1
SECL	28-Oct-10	Singhali UG Mine	1
SECL	30-Oct-10	Nowrozabad	1
SECL	19-Nov-10	Gevra OCP	1
SECL	11-Nov-10	Dipka OCM-1A	1
SECL	09-Dec-10	NCPH (old)	1
SECL	26-Dec-10	Rajnagar RO UG	1
WCL	02-Jan-10	Umrer OC	1
WCL	10-Mar-10	Barkui Opencast	1
WCL	15-Apr-10	Chhatarpur-1 Mine	1
WCL	23-Apr-10	Damua Colliary	1
WCL	07-Jun-10	PK 2 Mine	2
WCL	31-May-10	Ghughus OC	1
WCL	20-Jul-10	Umrer OC	1
WCL	27-Sep-10	Silewara UG	2
WCL	28-Sep-10	Umrer OC	1
WCL	16-Oct-10	Gondegaon Opencast	1

Note: Figures for are provisional and subject to reconciliation with DGMS.